

AMENDMENTS TO THE CLAIMS

Please amend claims 1-3, 5, 8, and 9. Please add new claims 12-20. Following is a complete listing of the claims pending in the application, as amended:

1. (Currently Amended) A method of ~~image dithering process for detecting photo-images and character characters in a master copy, the method comprising:~~ determining a background color ~~from a~~ of said master copy; separating content of said master copy into at least one photo-image and at least one character with ~~based at least in part on~~ said background color as a criterion; processing said ~~photo-image~~ with halftone processing; processing said character with line art processing; and and combining said processed ~~photo-image~~ and processed character as a whole.

2. (Currently Amended) The method of claim 1, further comprising: condensing said master copy into a condensed area based at least in part on said background color; cutting transversely said condensed area; cutting vertically said transversely cut area ~~for dividing said original area into several individual areas;~~ choosing a second background color from at least one of ~~said~~ individual area areas; marking ~~said~~ at least one of ~~said~~ individual area areas with said ~~photo-image~~ as an photo-image area; marking at least one of ~~said~~ individual area areas with said character as a character area; utilizing said second background color to condense said individual areas; and repeating said condensing of ~~said~~ individual areas if said ~~photo-image~~ area and said character area of said individual area areas are not identifiable.

3. (Currently Amended) The method of claim 1, wherein said halftone processing comprising-comprises a dithering process.

4. (Previously Presented) The method of claim 3, wherein said dithering process comprises a sampling mode dithering.

5. (Currently Amended) A method of ~~image-dithering-process-for-detecting photo-images and character-text in a master copy, the method comprising:~~

- a. choosing a first background color from ~~a-the~~ master copy;
- b. separating the content of the master copy into images and text ~~with-based at least in part on~~ the first background color ~~as-the-criterion~~;
- c. condensing the master copy based at least in part on the first background color;
- d. cutting transversely the condensed master copy based at least in part on the first background color;
- e. cutting vertically the transversely cut master copy based at least in part on the first background color in order to create individual areas;
- f. choosing a second background color from the individual areas;
- g. identifying image and text based at least in part on the second background color;
- h. marking the individual areas with ~~image-images~~ as an-image areas;
- i. marking the individual areas with text as a-text areas;
- j. if the individual areas cannot be identified, replacing the first background color with the second background color, condensing the unidentifiable individual areas based at least in part on the second background color, and then repeating d to j;
- k. processing the images with halftone processing;
- l. processing the text with line art processing; and
- m. outputting the processed images and processed text as a whole.

6. (Previously Presented) The method of claim 5, wherein the halftone processing comprises a dithering process.

7. (Previously Presented) The method of claim 6, wherein the dithering process comprises a sampling mode dithering.

8. (Currently Amended) A An image-dithering process for method of detecting images and text in a master copy , the method comprising:

determining choosing a background color from a said master copy;

separating dividing content of said master copy into image-images and text with said chosen background color as a criterion;

processing said image-images with halftone processing to present said images with a clear tone level graduation;

processing said text with line art processing to clearly present the text; and combining said processed image-images and processed text.

9. (Currently Amended) The method of claim 8, and further comprising:

condensing said master copy into a condensed area based at least in part on said background color;

cutting transversely said condensed area;

cutting vertically said transversely cut area for dividing said original area into several individual areas;

choosing a second background color from at least one of said individual areaareas;

marking said at least one of said individual area-areas with said photo-images as a photo-an image area;

marking at least one of said individual area-areas with said character-text as a character-text area;

utilizing said second background color to condense said individual areas; and

repeating said condensing if said photo-image area and said character-text area of said individual area-areas are not identifiable.

10. (Previously Presented) The method of claim 8, wherein the method is carried out in a scanner.

11. (Previously Presented) The method of claim 8, wherein the method is carried out in a fax.

12. (New) The method of claim 8 wherein processing said images with halftone processing to present said images with a clear tone level graduation includes processing said images with halftone processing to present said images with a clear tone level graduation divided into 1024 levels.

13. (New) The method of claim 8 wherein processing said text with line art processing to clearly present the text includes processing said text with line art processing having two values for said text.

14. (New) An apparatus that automatically detects images and text in a master copy, the apparatus comprising:

a component configured to determine a background color of the master copy;
a component configured to separate content of the master copy into images and text based at least in part on the background color;
a component configured to process the images with halftone processing;
a component configured to process the text with line art processing; and
a component configured to combine the processed images and the processed text.

15. (New) The apparatus of claim 14 wherein the component configured to process the images with halftone processing is further configured to process the images with a dithering process.

16. (New) The apparatus of claim 15 wherein the component configured to process the images with a dithering process is further configured to process the images with a sampling mode dithering.

17. (New) The apparatus of claim 14 wherein the apparatus is a fax machine.

18. (New) The apparatus of claim 14 wherein the apparatus is a copier.

19. (New) The apparatus of claim 14, further comprising a component configured to condense the master copy into a condensed area based at least in part on the background color.

20. (New) The apparatus of claim 19, further comprising a component configured to transversely and/or vertically cut the condensed area.